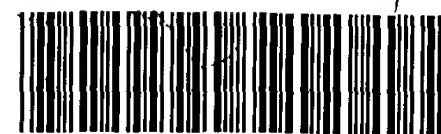


#9



PCT09

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/857,636

DATE: 02/25/2002
 TIME: 10:54:19

Input Set : A:\00537-186001.TXT
 Output Set: N:\CRF3\02252002\I857636.raw

4 <110> APPLICANT: Dong, Zheng Xin
 7 <120> TITLE OF INVENTION: Analogues of GLP-1
 10 <130> FILE REFERENCE: 00537-186002
 12 <140> CURRENT APPLICATION NUMBER: 09/857,636
 13 <141> CURRENT FILING DATE: 2001-06-07
 15 <150> PRIOR APPLICATION NUMBER: PCT/EP99/09660
 16 <151> PRIOR FILING DATE: 1999-12-07
 18 <150> PRIOR APPLICATION NUMBER: 60/111,255
 19 <151> PRIOR FILING DATE: 1998-12-07
 21 <150> PRIOR APPLICATION NUMBER: 09/206,601
 22 <151> PRIOR FILING DATE: 1998-12-07
 24 <160> NUMBER OF SEQ ID NOS: 411
 26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 28 <210> SEQ ID NO: 1
 29 <211> LENGTH: 30
 30 <212> TYPE: PRT
 31 <213> ORGANISM: Homo sapiens
 33 <400> SEQUENCE: 1
 34 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 35 1 5 10 15
 36 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
 37 20 25 30
 39 <210> SEQ ID NO: 2
 40 <211> LENGTH: 30
 41 <212> TYPE: PRT
 42 <213> ORGANISM: Artificial Sequence
 44 <220> FEATURE:
 45 <223> OTHER INFORMATION: Mutagen
 47 <221> NAME/KEY: VARIANT
 48 <222> LOCATION: 2, 29
 49 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)
 51 <221> NAME/KEY: VARIANT
 52 <222> LOCATION:
 53 <223> OTHER INFORMATION: this sequence has an amidated c-terminus
 55 <400> SEQUENCE: 2
 56 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 57 1 5 10 15
 58 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 59 20 25 30
 61 <210> SEQ ID NO: 3
 62 <211> LENGTH: 30
 63 <212> TYPE: PRT
 64 <213> ORGANISM: Artificial Sequence

P.S.
ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,636

DATE: 02/25/2002

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Input Set : A:\00537-186001.TXT

Output Set: N:\CRF3\02252002\I857636.raw

66 <220> FEATURE:

67 <223> OTHER INFORMATION: Mutagen

69 <221> NAME/KEY: VARIANT

70 <222> LOCATION: 1

71 <223> OTHER INFORMATION: Xaa = Na-HEPES-His

72 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu

73 lfonic acid)-histidine

75 <221> NAME/KEY: VARIANT

76 <222> LOCATION: 2, 29

77 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)

79 <221> NAME/KEY: VARIANT

80 <222> LOCATION:

81 <223> OTHER INFORMATION: this sequence has an amidated c-terminus

83 <400> SEQUENCE: 3

W-> 84 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

85 1 5 10 15

W-> 86 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

87 20 25 30

89 <210> SEQ ID NO: 4

90 <211> LENGTH: 30

91 <212> TYPE: PRT

92 <213> ORGANISM: Artificial Sequence

94 <220> FEATURE:

95 <223> OTHER INFORMATION: Mutagen

97 <221> NAME/KEY: VARIANT

98 <222> LOCATION: 1

99 <223> OTHER INFORMATION: Xaa = Na-HEPA-His

100 (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-

101 histidine

104 <221> NAME/KEY: VARIANT

105 <222> LOCATION: 2, 29

106 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)

108 <221> NAME/KEY: VARIANT

109 <222> LOCATION:

110 <223> OTHER INFORMATION: this sequence has an amidated c-terminus

112 <400> SEQUENCE: 4

W-> 113 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

114 1 5 10 15

W-> 115 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

116 20 25 30

118 <210> SEQ ID NO: 5

119 <211> LENGTH: 30

120 <212> TYPE: PRT

121 <213> ORGANISM: Artificial Sequence

123 <220> FEATURE:

124 <223> OTHER INFORMATION: Mutagen

126 <221> NAME/KEY: VARIANT

127 <222> LOCATION: 2

128 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,636

DATE: 02/25/2002

TIME: 10:54:19

Input Set : A:\00537-186001.TXT

Output Set: N:\CRF3\02252002\I857636.raw

130 <221> NAME/KEY: VARIANT
 131 <222> LOCATION: 29
 132 <223> OTHER INFORMATION: Xaa = beta-Ala (beta-alanine)
 134 <221> NAME/KEY: VARIANT
 135 <222> LOCATION:
 136 <223> OTHER INFORMATION: this sequence has an amidated c-terminus
 138 <400> SEQUENCE: 5
 W--> 139 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 140 1 5 10 15
 W--> 141 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 142 20 25 30
 144 <210> SEQ ID NO: 6
 145 <211> LENGTH: 30
 146 <212> TYPE: PRT
 147 <213> ORGANISM: Artificial Sequence
 149 <220> FEATURE:
 150 <223> OTHER INFORMATION: Mutagen
 152 <221> NAME/KEY: VARIANT
 153 <222> LOCATION: 2, 29
 154 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)
 156 <221> NAME/KEY: VARIANT
 157 <222> LOCATION: 30
 158 <223> OTHER INFORMATION: Xaa = N-epsilon-tetradecanoyl-lysine
 160 <221> NAME/KEY: VARIANT
 161 <222> LOCATION:
 162 <223> OTHER INFORMATION: this sequence has an amidated c-terminus
 164 <400> SEQUENCE: 6
 W--> 165 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 166 1 5 10 15
 W--> 167 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 168 20 25 30
 170 <210> SEQ ID NO: 7
 171 <211> LENGTH: 30
 172 <212> TYPE: PRT
 173 <213> ORGANISM: Artificial Sequence
 175 <220> FEATURE:
 176 <223> OTHER INFORMATION: Mutagen
 178 <221> NAME/KEY: VARIANT
 179 <222> LOCATION: 2, 29
 180 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)
 182 <221> NAME/KEY: VARIANT
 183 <222> LOCATION: 28
 184 <223> OTHER INFORMATION: Xaa = N-epsilon-tetradecanoyl-lysine
 186 <221> NAME/KEY: VARIANT
 187 <222> LOCATION:
 188 <223> OTHER INFORMATION: this sequence has an amidated c-terminus
 190 <400> SEQUENCE: 7
 W--> 191 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 192 1 5 10 15

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,636

DATE: 02/25/2002

TIME: 10:54:19

Input Set : A:\00537-186001.TXT

Output Set: N:\CRF3\02252002\I857636.raw

193 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 194 20 25 30
 196 <210> SEQ ID NO: 8
 197 <211> LENGTH: 32
 198 <212> TYPE: PRT
 199 <213> ORGANISM: Artificial Sequence
 201 <220> FEATURE:
 202 <223> OTHER INFORMATION: Mutagen
 204 <221> NAME/KEY: VARIANT
 205 <222> LOCATION: 2, 29, 31
 206 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)
 208 <221> NAME/KEY: VARIANT
 209 <222> LOCATION: 32
 210 <223> OTHER INFORMATION: Xaa = N-epsilon-tetradecanoyl-lysine
 212 <221> NAME/KEY: VARIANT
 213 <222> LOCATION:
 214 <223> OTHER INFORMATION: this sequence has an amidated c-terminus
 216 <400> SEQUENCE: 8
 217 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 218 1 5 10 15
 219 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 220 20 25 30
 222 <210> SEQ ID NO: 9
 223 <211> LENGTH: 30
 224 <212> TYPE: PRT
 225 <213> ORGANISM: Artificial Sequence
 227 <220> FEATURE:
 228 <223> OTHER INFORMATION: Mutagen
 230 <221> NAME/KEY: VARIANT
 231 <222> LOCATION: 2, 29
 232 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)
 234 <221> NAME/KEY: VARIANT
 235 <222> LOCATION: 30
 236 <223> OTHER INFORMATION: Xaa = N-epsilon-decanoyl-lysine
 238 <221> NAME/KEY: VARIANT
 239 <222> LOCATION:
 240 <223> OTHER INFORMATION: this sequence has an amidated c-terminus
 242 <400> SEQUENCE: 9
 243 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 244 1 5 10 15
 245 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 246 20 25 30
 248 <210> SEQ ID NO: 10
 249 <211> LENGTH: 30
 250 <212> TYPE: PRT
 251 <213> ORGANISM: Artificial Sequence
 253 <220> FEATURE:
 254 <223> OTHER INFORMATION: Mutagen
 256 <221> NAME/KEY: VARIANT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,636

DATE: 02/25/2002

TIME: 10:54:19

Input Set : A:\00537-186001.TXT

Output Set: N:\CRF3\02252002\I857636.raw

257 <222> LOCATION: 2, 29

258 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)

260 <221> NAME/KEY: VARIANT

261 <222> LOCATION: 30

262 <223> OTHER INFORMATION: Xaa = N-epsilon-dodecanesulfonyl-lysine

264 <221> NAME/KEY: VARIANT

265 <222> LOCATION:

266 <223> OTHER INFORMATION: this sequence has an amidated c-terminus

268 <400> SEQUENCE: 10

W--> 269 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 270 1 5 10 15

W--> 271 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 272 20 25 30

274 <210> SEQ ID NO: 11

275 <211> LENGTH: 30

276 <212> TYPE: PRT

277 <213> ORGANISM: Artificial Sequence

279 <220> FEATURE:

280 <223> OTHER INFORMATION: Mutagen

282 <221> NAME/KEY: VARIANT

283 <222> LOCATION: 2, 29

284 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)

286 <221> NAME/KEY: VARIANT

287 <222> LOCATION: 30

288 <223> OTHER INFORMATION: Xaa =

289 N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

291 <221> NAME/KEY: VARIANT

292 <222> LOCATION:

293 <223> OTHER INFORMATION: this sequence has an amidated c-terminus

295 <400> SEQUENCE: 11

W--> 296 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 297 1 5 10 15

W--> 298 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 299 20 25 30

301 <210> SEQ ID NO: 12

302 <211> LENGTH: 30

303 <212> TYPE: PRT

304 <213> ORGANISM: Artificial Sequence

306 <220> FEATURE:

307 <223> OTHER INFORMATION: Mutagen

309 <221> NAME/KEY: VARIANT

310 <222> LOCATION: 2, 29

311 <223> OTHER INFORMATION: Xaa = Aib (alpha-aminoisobutyric acid)

313 <221> NAME/KEY: VARIANT

314 <222> LOCATION: 30

315 <223> OTHER INFORMATION: Xaa = 1-(4-tetradecyl-piperazine)-acetyl)asparagines

317 <221> NAME/KEY: VARIANT

318 <222> LOCATION:

319 <223> OTHER INFORMATION: this sequence has an amidated c-terminus

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/857,636

DATE: 02/25/2002
TIME: 10:54:20

Input Set : A:\00537-186001.TXT
Output Set: N:\CRF3\02252002\I857636.raw

L:56 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:58 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:84 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:271 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:405 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:407 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:477 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:501 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:527 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:529 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:549 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:577 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:601 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:603 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:629 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:659 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/857,636

DATE: 02/25/2002

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Input Set : A:\00537-186001.TXT

Output Set: N:\CRF3\02252002\I857636.raw

L:689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26

L:691 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26